

ABSTRACT

5 An intake pipe downstream of a throttle valve is
interconnected with an exhaust pipe via an EGR supply
pipe and an EGR control valve is disposed in the EGR
supply pipe. An engine load ratio (K_{Loff}) in the engine
steady operation with the EGR gas being not supplied, and
another engine load ratio K_{Lon} in the engine steady
operation with the EGR gas being supplied are expressed
10 with respective linear functions of an *intake pipe*
pressure (P_m) and stored in advance. The *intake pipe*
pressure (P_m) is detected, K_{Loff} and K_{Lon} are calculated
from the detected *intake pipe pressure* (P_m) using the
linear function expressions and, then, a difference
15 between these values ΔK_L (= K_{Loff} - K_{Lon}) is calculated.
Based on the difference (ΔK_L), the *EGR control valve*
passing-through gas amount, which is an amount of the EGR
gas passing through the EGR control valve, is calculated.